

CLAIM AMENDMENTS

Claims 1-25. (Cancelled).

26. (Currently amended) A method, comprising:

obtaining a current connection state as well as a current load state of each of a plurality of processors configured to perform communication in a packet switched connection;

selecting on a per received packet basis, by a load-balancer configured to distribute load to said processors, a processor having a lowest load in such a manner that a respective next received packet is distributed to the processor irrespective of a specific connection to which this next received packet belongs;

maintaining information about the load state of each processor so that said selecting is performed by selecting one of said processors to serve and process a respective received packet based on the load state; and

providing information regarding informing the current connection state to respective processors comprising inserting data indicating the current connection state into a packet to be distributed.

27. (Previously presented) A method according to claim 26, wherein said data storage is accessed by said load balancer.

28. (Previously presented) A method according to claim 26, wherein said data storage is accessed by said processors.

29. (Previously presented) A method according to claim 26, wherein said information about the load state is maintained as a Boolean state.

30. (Previously presented) A method according to claim 26, wherein a processor is selected in a round-robin fashion.

31. (Previously presented) A method according to claim 26, wherein a supported service profile for each processor is maintained.

32. (Previously presented) A method according to claim 31, wherein said supported service profile is used as additional selection criteria.

33. (Previously presented) A method according to claim 26, wherein said load balancer is configured to obtain a load state from each processor upon a hardware based mechanism.

34. (Previously presented) A method according to claim 26, wherein said load balancer is configured to obtain a load state from each processor upon a packet based mechanism.

35. (Previously presented) A method according to claim 34, wherein a load state of a processor is inserted into a received packet processed by said processor.

36. (Previously presented) A method according to claim 34, wherein a packet returned by a processor is interpreted as a flag for a free resource.

37. (Previously presented) A method according to claim 26, wherein excess traffic is redirected to another load balancer, said excess traffic being defined upon the number of active processors.

Claims 38-40. (Cancelled)

41. (Currently amended) An apparatus, comprising at least one processor and at least one memory, the at least one memory configured to, with the at least one processor, cause the apparatus to at least perform:

~~selection circuitry configured to~~ select, on a per received packet basis, one of a plurality of processors configured to perform communication in a packet switched connection on the basis of a stored load state of the selected processor in such a manner that a respective next received

packet is distributed to the selected processor with a lowest load among said processors irrespective of a specific connection to which this next received packet belongs; and

~~connection state informing circuitry configured to provide information regarding the~~
current connection state to respective processors by inserting data indicating the current connection state into a packet to be distributed.

42. (Previously presented) An apparatus according to claim 41, wherein a load state of a processor is contained in a table.

43. (Previously presented) An apparatus according to claim 41, wherein a load state of a processor is expressed as a Boolean value.

44. (Previously presented) An apparatus according to claim 41, wherein a load state of a processor is expressed as value which corresponds to the percentage of load.

45. (Currently amended) An apparatus according to claim 41, wherein said apparatus selection circuitry is configured such that a processor is selected also on the basis of a parameter indicating the service profile supported by a respective processor.

46. (Previously presented) An apparatus according to claim 45, wherein said parameter is contained in a table.

47. (Currently amended) An apparatus according to claim 41, ~~further comprising:~~
data insertion circuitry wherein the apparatus is further configured to insert a communication connection state into a received packet to be routed.

48. (Previously presented) An apparatus according to claim 41, wherein the processors are comprised of multi-core digital signal processing elements having a shared data storage for all cores, whereby said device comprises a first level of load balancing configured to select a digital signal processing means and a second level of load balancing configured to select a single core.

49. (Previously presented) An apparatus according to claim 41, further comprising:
a switch configured to redirect excess traffic to another apparatus, wherein said excess traffic is defined upon the number of active processors.

50. (Previously presented) A system comprising:
an obtaining unit configured to obtain a current connection state as well as a current load state of each of a plurality of processors configured to perform communication in a packet switched connection;

a selector configured to select on a per received packet basis one of said processors, by a load balancer configured to distribute load to said processors in such a manner that a respective next received packet is distributed to the selected processor having a lowest load irrespective of a specific connection to which this next received packet belongs;

a maintenance unit configured to maintain information about the load state of each processor so that said selecting comprises selecting one of said processors to serve and process a respective received packet based on the load states; and

an informing unit configured to inform the current connection state to respective processors comprising inserting data indicating the current connection state into a packet to be distributed.

51. (Currently amended) A computer program embodied on a computer readable medium, the computer readable medium storing code comprising computer executable instructions configured to perform a method comprising:

obtaining a current connection state as well as a current load state of each of a plurality of processors configured to perform communication in a packet switched connection;

selecting on a per received packet basis, by a load balancer configured to distribute load to said processors, one of said processors in such a manner that a respective next received packet is distributed to said selected one of said processors having a lowest load irrespective of a specific connection to which a respective received packet belongs;

maintaining information about the load state of each processor so that said selecting comprises selecting one of said processors to serve and process a respective received packet based on the load state; and

providing information regarding informing the current connection state to respective processors comprising inserting data indicating the current connection state into a packet to be distributed.

52. (Previously presented) A system comprising:
a plurality of processors configured to perform communication in a packet switched connection; and
at least one load balancer configured to distribute the load to said processors,
wherein the load balancer is configured to
obtain a stored current connection state and a current load state of each of said processors,
maintain information about the load state of each of said processors,
select a processor in such a manner that a respective next received packet is distributed to the processor having a lowest load irrespective of a specific connection to which a respective received packet belongs, and
inform the current connection state to respective processors comprising inserting data indicating the current connection state into a packet to be distributed.

53. (Previously presented) An apparatus, comprising:
a load balancer, wherein the load balancer is configured to
obtain a current connection state and a current load state of each of a plurality of processors;
maintain information about the load state of each of said processors;
and
select, on a per received packet basis, a processor having a lowest load in such a manner that a respective next received packet is distributed to the processor irrespective of a specific connection to which this next respective received packet belongs.

54. (Previously presented) An apparatus, comprising:
maintaining means for maintaining a load state of each of multiple processors performing a packet switched communication connection;

selecting means for selecting, on a per received packet basis, one of the processors on the basis of its load state in such a manner that a respective next received packet is distributed to a processor having a lowest load irrespective of a specific connection to which a respective received packet belongs; and

informing means for informing the current connection state to respective processors by inserting data indicating the current connection state into a packet to be distributed.

55. (Previously presented) An apparatus according to claim 54, further comprising:
means for inserting a communication connection state into a packet to be routed.

56. (Previously presented) An apparatus according to claim 54, further comprising:
means for redirecting excess traffic to another device, wherein said excess traffic is defined upon the number of active processors.